

SEQUENCE LISTING

<110> Keith Schappert

<120> METHODS FOR TREATING OR IDENTIFYING A
SUBJECT AT RISK FOR A NEUROLOGICAL DISEASE BY DETERMINING
THE PRESENCE OF A VARIANT GPIIIA AND/OR VARIANT GPIIB ALLELE

<130> 50211/015003

<150> 09/409,648

<151> 1999-10-01

<150> 60/102,624

<151> 1998-10-01

<160> 14

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 3997

<212> DNA

<213> Homo sapiens

<400> 1

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| ggcgctgggg | gcgctggcgg | gcgttgccgt | aggagggccc | aacatctgta | ccacgcgagg | 120 |
| tgtgagctcc | tgccagcagt | gcctggctgt | gagcccatg | tgtgcctggg | gctctgatga | 180 |
| ggccctgcct | ctgggctcac | ctcgctgtga | cctgaaggag | aatctgctga | aggataactg | 240 |
| tgcccagaa | tccatcgagt | tcacagttag | tgaggcccga | gtactagagg | acaggcccct | 300 |
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| accagaggcc | ctcgaaaacc | cctgctatga | tatgaagacc | acctgcttgc | ccatgtttgg | 660 |
| ctacaaacac | gtgctgacgc | taactgacca | ggtgaccgcg | ttcaatgagg | aagtgaagaa | 720 |
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| tacagtctgt | gatgaaaaga | ttggctggag | gaatgatgca | tcccacttgc | tggtgtttac | 840 |
| cactgatgcc | aagactcata | tagcattgga | cggaaggctg | gcaggcattg | tccagcctaa | 900 |
| tgacgggcag | tgtcatgttg | gtagtgacaa | tcattactct | gcctccacta | ccatggatta | 960 |
| tcctcttttg | gggctgatga | ctgagaagct | atcccagaaa | aacatcaatt | tgatcttttg | 1020 |
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| agttgggggt | ctgtccatgg | attccagcaa | tgtcctccag | ctcattgttg | atgcttatgg | 1140 |
| gaaaaatccg | tctaaagtag | agctggaagt | gcgtgacctc | cctgaagagt | tgtctctatc | 1200 |
| cttcaatgcc | acctgcctca | acaatgaggt | catccctggc | ctcaagtctt | gtatgggact | 1260 |
| caagattgga | gacacgggtg | gcttcagcat | tgaggccaag | gtgcgaggct | gtccccagga | 1320 |
| gaaggagaag | tcctttacca | taaagcccgt | gggcttcaag | gacagcctga | tcgtccagggt | 1380 |
| cacctttgat | tgtgactgtg | cctgccaggc | ccaagctgaa | cctaatagcc | atcgctgcaa | 1440 |
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| ccagtgtgag | tgtctagagg | aggactatcg | cccttcccag | caggacgaat | gcagcccccg | 1560 |
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| cagcagtgc | tttggcaaga | tcacgggcaa | gtactgcgag | tgtgacgact | tctcctgtgt | 1680 |
| ccgctacaag | ggggagatgt | gctcaggcca | tgccagtg | agctgtgggg | actgcctgtg | 1740 |
| tgactccgac | tggaccggct | actactgcaa | ctgtaccacg | cgtactgaca | cctgcatgtc | 1800 |
| cagcaatggg | ctgctgtgca | gcggccgcgg | caagtgtgaa | tgtggcagct | gtgtctgtat | 1860 |
| ccagccgggc | tccatgggg | acacctgtga | gaagtgcccc | acctgccag | atgcctgcac | 1920 |
| ctttaagaaa | gaatgtgtgg | agtgtgaagaa | gtttgaccgg | gagccctaca | tgaccgaaaa | 1980 |
| tacctgcaac | cgttactgcc | gtgacgagat | tgagtcagtg | aaagagctta | aggacactgg | 2040 |
| caaggatgca | gtgaattgta | cctataagaa | tgaggatgac | tgtgtcgtca | gattccagta | 2100 |
| ctatgaagat | tctagtggaa | agtccatcct | gtatgtggta | gaagagccag | agtgtcccaa | 2160 |
| gggccttgac | atcctggtgg | tcctgtctct | agtgatgggg | gccattctgc | tcattggcct | 2220 |
| tgccgcctcg | ctcatctgga | aactcctcat | caccatccac | gaccgaaaag | aattcgctaa | 2280 |
| atttgaggaa | gaacgcgcca | gagcaaaatg | ggacacagcc | aacaacccac | tgtataaaga | 2340 |
| ggccacgtct | accttcacca | atatcacgta | ccggggcact | taatgataag | cagtcatcct | 2400 |
| cagatcatta | tcagcctgtg | ccacgattgc | aggagtccct | gccatcatgt | ttacagagga | 2460 |
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| cgaaggagga | gtcaggggaga | gctgaactat | tagagctgcc | tgtgcctttt | gccatccctt | 3000 |
| caaccagct | atggttctct | cgcaagggaa | gtccttgcaa | gctaattctt | tgacctgttg | 3060 |
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| ccctcactgc | tgtagacatt | tgctatgagc | tggggatgtc | tctcatgacc | aaatgctttt | 3300 |
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| cagtggctcc | attggtgttg | acatacatcc | aacattaaaa | gccaccccca | aatgcccaag | 3960 |
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<211> 3997

<212> DNA

<213> Homo sapiens

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| ggcgctgggg | gcgttggcgg | gcgttggcgt | aggagggccc | aacatctgta | ccacgcgagg | 120 |
| tgtgagctcc | tgccagcagt | gcctggctgt | gagccccatg | tgtgcctggt | gctctgatga | 180 |
| ggccctgcct | ccgggctcac | ctcgctgtga | cctgaaggag | aatctgctga | aggataactg | 240 |
| tgccccagaa | tccatcgagt | tcccagtgag | tgaggcccca | gtactagagg | acaggccctc | 300 |
| cagcgacaag | ggctctggag | acagctccca | ggtcactcaa | gtcagtcccc | agaggatttc | 360 |
| actccggctc | cggccagatg | attcgaagaa | tttctccatc | caagtgcggc | aggtggagga | 420 |
| ttaccctgtg | gacatctact | acttgatgga | cctgtcttac | tccatgaagg | atgatctgtg | 480 |

| | | | | | | |
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| accagaggcc | ctcgaaaacc | cctgctatga | tatgaagacc | acctgcttgc | ccatgtttgg | 660 |
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| cagtggctcc | attggtgttg | acatacatcc | aacattaaaa | gccaccccca | aatgcccaag | 3960 |
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<400> 3

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| Met | Arg | Ala | Arg | Pro | Arg | Pro | Arg | Pro | Leu | Trp | Val | Thr | Val | Leu | Ala | 1 | 5 | 10 | 15 |
| Leu | Gly | Ala | Leu | Ala | Gly | Val | Gly | Val | Gly | Gly | Pro | Asn | Ile | Cys | Thr | 20 | 25 | 30 | |
| Thr | Arg | Gly | Val | Ser | Ser | Cys | Gln | Gln | Cys | Leu | Ala | Val | Ser | Pro | Met | 35 | 40 | 45 | |
| Cys | Ala | Trp | Cys | Ser | Asp | Glu | Ala | Leu | Pro | Leu | Gly | Ser | Pro | Arg | Cys | 50 | 55 | 60 | |
| Asp | Leu | Lys | Glu | Asn | Leu | Leu | Lys | Asp | Asn | Cys | Ala | Pro | Glu | Ser | Ile | 65 | 70 | 75 | 80 |
| Glu | Phe | Pro | Val | Ser | Glu | Ala | Arg | Val | Leu | Glu | Asp | Arg | Pro | Leu | Ser | 85 | 90 | 95 | |
| Asp | Lys | Gly | Ser | Gly | Asp | Ser | Ser | Gln | Val | Thr | Gln | Val | Ser | Pro | Gln | 100 | 105 | 110 | |
| Arg | Ile | Ala | Leu | Arg | Leu | Arg | Pro | Asp | Asp | Ser | Lys | Asn | Phe | Ser | Ile | 115 | 120 | 125 | |
| Gln | Val | Arg | Gln | Val | Glu | Asp | Tyr | Pro | Val | Asp | Ile | Tyr | Tyr | Leu | Met | 130 | 135 | 140 | |
| Asp | Leu | Ser | Tyr | Ser | Met | Lys | Asp | Asp | Leu | Trp | Ser | Ile | Gln | Asn | Leu | 145 | 150 | 155 | 160 |
| Gly | Thr | Lys | Leu | Ala | Thr | Gln | Met | Arg | Lys | Leu | Thr | Ser | Asn | Leu | Arg | 165 | 170 | 175 | |
| Ile | Gly | Phe | Gly | Ala | Phe | Val | Asp | Lys | Pro | Val | Ser | Pro | Tyr | Met | Tyr | 180 | 185 | 190 | |
| Ile | Ser | Pro | Pro | Glu | Ala | Leu | Glu | Asn | Pro | Cys | Tyr | Asp | Met | Lys | Thr | 195 | 200 | 205 | |
| Thr | Cys | Leu | Pro | Met | Phe | Gly | Tyr | Lys | His | Val | Leu | Thr | Leu | Thr | Asp | 210 | 215 | 220 | |
| Gln | Val | Thr | Arg | Phe | Asn | Glu | Glu | Val | Lys | Lys | Gln | Ser | Val | Ser | Arg | 225 | 230 | 235 | 240 |
| Asn | Arg | Asp | Ala | Pro | Glu | Gly | Gly | Phe | Asp | Ala | Ile | Met | Gln | Ala | Thr | 245 | 250 | 255 | |
| Val | Cys | Asp | Glu | Lys | Ile | Gly | Trp | Arg | Asn | Asp | Ala | Ser | His | Leu | Leu | 260 | 265 | 270 | |
| Val | Phe | Thr | Thr | Asp | Ala | Lys | Thr | His | Ile | Ala | Leu | Asp | Gly | Arg | Leu | 275 | 280 | 285 | |
| Ala | Gly | Ile | Val | Gln | Pro | Asn | Asp | Gly | Gln | Cys | His | Val | Gly | Ser | Asp | 290 | 295 | 300 | |
| Asn | His | Tyr | Ser | Ala | Ser | Thr | Thr | Met | Asp | Tyr | Pro | Ser | Leu | Gly | Leu | 305 | 310 | 315 | 320 |
| Met | Thr | Glu | Lys | Leu | Ser | Gln | Lys | Asn | Ile | Asn | Leu | Ile | Phe | Ala | Val | 325 | 330 | 335 | |
| Thr | Glu | Asn | Val | Val | Asn | Leu | Tyr | Gln | Asn | Tyr | Ser | Glu | Leu | Ile | Pro | 340 | 345 | 350 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Thr | Thr | Val | Gly | Val | Leu | Ser | Met | Asp | Ser | Ser | Asn | Val | Leu | Gln |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Leu | Ile | Val | Asp | Ala | Tyr | Gly | Lys | Ile | Arg | Ser | Lys | Val | Glu | Leu | Glu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Val | Arg | Asp | Leu | Pro | Glu | Glu | Leu | Ser | Leu | Ser | Phe | Asn | Ala | Thr | Cys |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Leu | Asn | Asn | Glu | Val | Ile | Pro | Gly | Leu | Lys | Ser | Cys | Met | Gly | Leu | Lys |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Ile | Gly | Asp | Thr | Val | Ser | Phe | Ser | Ile | Glu | Ala | Lys | Val | Arg | Gly | Cys |
| | | | 420 | | | | | 425 | | | | 430 | | | |
| Pro | Gln | Glu | Lys | Glu | Lys | Ser | Phe | Thr | Ile | Lys | Pro | Val | Gly | Phe | Lys |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Asp | Ser | Leu | Ile | Val | Gln | Val | Thr | Phe | Asp | Cys | Asp | Cys | Ala | Cys | Gln |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Ala | Gln | Ala | Glu | Pro | Asn | Ser | His | Arg | Cys | Asn | Asn | Gly | Asn | Gly | Thr |
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| Phe | Glu | Cys | Gly | Val | Cys | Arg | Cys | Gly | Pro | Gly | Trp | Leu | Gly | Ser | Gln |
| | | | | 485 | | | | | 490 | | | | | 495 | |
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| Lys | Tyr | Cys | Glu | Cys | Asp | Asp | Phe | Ser | Cys | Val | Arg | Tyr | Lys | Gly | Glu |
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Val Ser Trp Ser Asp Val Ile Val Ala Cys Ala Pro Trp Gln His Trp
130         135         140
Asn Val Leu Glu Lys Thr Glu Glu Ala Glu Lys Thr Pro Val Gly Ser
145         150         155         160
Cys Phe Leu Ala Gln Pro Glu Ser Gly Arg Arg Ala Glu Tyr Ser Pro
165         170         175
Cys Arg Gly Asn Thr Leu Ser Arg Ile Tyr Val Glu Asn Asp Phe Ser
180         185         190
Trp Asp Lys Arg Tyr Cys Glu Ala Gly Phe Ser Ser Val Val Thr Gln
195         200         205
Ala Gly Glu Leu Val Leu Gly Ala Pro Gly Gly Tyr Tyr Phe Leu Gly
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Leu Leu Ala Gln Ala Pro Val Ala Asp Ile Phe Ser Ser Tyr Arg Pro
225         230         235         240
Gly Ile Leu Leu Trp His Val Ser Ser Gln Ser Leu Ser Phe Asp Ser
245         250         255
Ser Asn Pro Glu Tyr Phe Asp Gly Tyr Trp Gly Tyr Ser Val Ala Val

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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| Gly | Glu | Phe | Asp | Gly | Asp | Leu | Asn | Thr | Thr | Glu | Tyr | Val | Val | Gly | Ala |
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| Leu | Leu | Val | Gly | Ala | Pro | Leu | Tyr | Met | Glu | Ser | Arg | Ala | Asp | Arg | Lys |
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| His | Ala | Leu | Gly | Ala | Pro | Ser | Leu | Leu | Leu | Thr | Gly | Thr | Gln | Leu | Tyr |
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| Gly | Arg | Phe | Gly | Ser | Ala | Ile | Ala | Pro | Leu | Gly | Asp | Leu | Asp | Arg | Asp |
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| Gly | Tyr | Asn | Asp | Ile | Ala | Val | Ala | Ala | Pro | Tyr | Gly | Gly | Pro | Ser | Gly |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Arg | Gly | Gln | Val | Leu | Val | Phe | Leu | Gly | Gln | Ser | Glu | Gly | Leu | Arg | Ser |
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| Arg | Pro | Ser | Gln | Val | Leu | Asp | Ser | Pro | Phe | Pro | Thr | Gly | Ser | Ala | Phe |
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| Gly | Phe | Ser | Leu | Arg | Gly | Ala | Val | Asp | Ile | Asp | Asp | Asn | Gly | Tyr | Pro |
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| His | Thr | Thr | Met | Ala | Phe | Leu | Arg | Asp | Glu | Ala | Asp | Phe | Arg | Asp | Lys |
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| Ala | Gly | Met | Ala | Pro | Ala | Val | Val | Le | | | | | | | |

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| Gly | Asn | Pro | Met | Lys 725 | Lys | Asn | Ala | Gln | Ile 730 | Gly | Ile | Ala | Met | Leu 735 | Val |
| Ser | Val | Gly | Asn | Leu 740 | Glu | Glu | Ala | Gly | Glu 745 | Ser | Val | Ser | Phe | Gln 750 | Leu |
| Gln | Ile | Arg | Ser | Lys 755 | Asn | Ser | Gln | Asn | Pro 760 | Asn | Ser | Lys | Ile | Val 765 | Leu |
| Leu | Asp 770 | Val | Pro | Val | Arg | Ala | Glu | Ala | Gln 775 | Val | Glu | Leu | Arg | Gly | Asn |
| Ser | Phe | Pro | Ala | Ser | Leu 785 | Val | Val | Ala | Ala 790 | Glu | Glu | Gly | Glu | Arg | Glu |
| Gln | Asn | Ser | Leu | Asp 805 | Ser | Trp | Gly | Pro | Lys 810 | Val | Glu | His | Thr | Tyr | Glu |
| Leu | His | Asn | Asn | Gly 820 | Pro | Gly | Thr | Val | Asn 825 | Gly | Leu | His | Leu | Ser | Ile |
| His | Leu | Pro | Gly | Gln 835 | Ser | Gln | Pro | Ser | Asp 840 | Leu | Leu | Tyr | Ile | Leu | Asp |
| Ile | Gln | Pro | Gln | Gly 850 | Gly | Leu | Gln | Cys | Phe 855 | Pro | Gln | Pro | Pro | Val | Asn |
| Pro | Leu | Lys | Val | Asp 865 | Trp | Gly | Leu | Pro | Ile 870 | Pro | Ser | Pro | Ser | Pro | Ile |
| His | Pro | Ala | His | His 885 | Lys | Arg | Asp | Arg | Arg 890 | Gln | Ile | Phe | Leu | Pro | Glu |
| Pro | Glu | Gln | Pro | Ser 900 | Arg | Leu | Gln | Asp | Pro 905 | Val | Leu | Val | Ser | Cys | Asp |
| Ser | Ala | Pro | Cys | Thr 915 | Val | Val | Gln | Cys | Asp 920 | Leu | Gln | Glu | Met | Ala | Arg |
| Gly | Gln | Arg | Ala | Met 930 | Val | Thr | Val | Leu | Ala 935 | Phe | Leu | Trp | Leu | Pro | Ser |
| Leu | Tyr | Gln | Arg | Pro 945 | Leu | Asp | Gln | Phe | Val 950 | Leu | Gln | Ser | His | Ala | Trp |
| Phe | Asn | Val | Ser | Ser 965 | Leu | Pro | Tyr | Ala | Val 970 | Pro | Pro | Leu | Ser | Leu | Pro |
| Arg | Gly | Glu | Ala | Gln 980 | Val | Trp | Thr | Gln | Leu 985 | Leu | Leu | Arg | Ala | Leu | Glu |
| Arg | Ala | Ile | Pro | Ile 995 | Trp | Trp | Val | Leu | Val 1000 | Gly | Val | Leu | Gly | Gly | Leu |
| Leu | Leu | Leu | Thr | Ile 1010 | Leu | Val | Leu | Ala | Met 1015 | Trp | Lys | Val | Gly | Phe | Phe |
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| Val | Leu | Leu | Leu | Leu | Gly | Pro | Cys | Ala | Ala | Pro | Pro | Ala | Trp | Ala | Leu |
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| Asn | Leu | Asp | Pro | Val | Gln | Leu | Thr | Phe | Tyr | Ala | Gly | Pro | Asn | Gly | Ser |

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| Gln | Phe | Gly | Phe | Ser | Leu | Asp | Phe | His | Lys | Asp | Ser | His | Gly | Arg | Val |
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| Ala | Ile | Val | Val | Gly | Ala | Pro | Arg | Thr | Leu | Gly | Pro | Ser | Gln | Glu | Glu |
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| Thr | Gly | Gly | Val | Phe | Leu | Cys | Pro | Trp | Arg | Ala | Glu | Gly | Gly | Gln | Cys |
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| Pro | Ser | Leu | Leu | Phe | Asp | Leu | Arg | Asp | Glu | Thr | Arg | Asn | Val | Gly | Ser |
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| Gln | Thr | Leu | Gln | Thr | Phe | Lys | Ala | Arg | Gln | Gly | Leu | Gly | Ala | Ser | Val |
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| Val | Ser | Trp | Ser | Asp | Val | Ile | Val | Ala | Cys | Ala | Pro | Trp | Gln | His | Trp |
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| Asn | Val | Leu | Glu | Lys | Thr | Glu | Glu | Ala | Glu | Lys | Thr | Pro | Val | Gly | Ser |
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| Cys | Phe | Leu | Ala | Gln | Pro | Glu | Ser | Gly | Arg | Arg | Ala | Glu | Tyr | Ser | Pro |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Cys | Arg | Gly | Asn | Thr | Leu | Ser | Arg | Ile | Tyr | Val | Glu | Asn | Asp | Phe | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Trp | Asp | Lys | Arg | Tyr | Cys | Glu | Ala | Gly | Phe | Ser | Ser | Val | Val | Thr | Gln |
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| Ala | Gly | Glu | Leu | Val | Leu | Gly | Ala | Pro | Gly | Gly | Tyr | Tyr | Phe | Leu | Gly |
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| Leu | Leu | Ala | Gln | Ala | Pro | Val | Ala | Asp | Ile | Phe | Ser | Ser | Tyr | Arg | Pro |
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| Gly | Ile | Leu | Leu | Trp | His | Val | Ser | Ser | Gln | Ser | Leu | Ser | Phe | Asp | Ser |
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| Pro | Thr | Trp | Ser | Trp | Thr | Leu | Gly | Ala | Val | Glu | Ile | Leu | Asp | Ser | Tyr |
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| Gly | His | Ser | Val | Ala | Val | Thr | Asp | Val | Asn | Gly | Asp | Gly | Arg | His | Asp |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | Leu | Val | Gly | Ala | Pro | Leu | Tyr | Met | Glu | Ser | Arg | Ala | Asp | Arg | Lys |
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| Leu | Ala | Glu | Val | Gly | Arg | Val | Tyr | Leu | Phe | Leu | Gln | Pro | Arg | Gly | Pro |
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| His | Ala | Leu | Gly | Ala | Pro | Ser | Leu | Leu | Leu | Thr | Gly | Thr | Gln | Leu | Tyr |
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| Gly | Thr | Thr | Leu | Asn | Leu | Asp | Leu | Gly | Gly | Lys | His | Ser | Pro | Ile | Cys | | |
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| His | Thr | Thr | Met | Ala | Phe | Leu | Arg | Asp | Glu | Ala | Asp | Phe | Arg | Asp | Lys | | |
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| Ala | Gly | Met | Ala | Pro | Ala | Val | Val | Leu | His | Gly | Asp | Thr | His | Val | Gln | | |
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| Pro | Gln | Leu | Gln | Leu | Thr | Ala | Ser | Val | Thr | Gly | Ser | Pro | Leu | Leu | Val | | |
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| Gly | Ala | Asp | Asn | Val | Leu | Glu | Leu | Gln | Met | Asp | Ala | Ala | Asn | Glu | Gly | | |
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| Glu | Gly | Ala | Tyr | Glu | Ala | Glu | Leu | Ala | Val | His | Leu | Pro | Gln | Gly | Ala | | |
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| Cys | Asn | Gln | Lys | Lys | Glu | Asn | Glu | Thr | Arg | Val | Val | Leu | Cys | Glu | Leu | | |
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| Ser | Phe | Pro | Ala | Ser | Leu | Val | Val | Ala | Ala | Glu | Gly | Glu | Arg | Glu | | | |
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| Gln | Asn | Ser | Leu | Asp | Ser | Trp | Gly | Pro | Lys | Val | Glu | His | Thr | Tyr | Glu | | |
| | | | 805 | | | | | 810 | | | | | 815 | | | | |
| Leu | His | Asn | Asn | Gly | Pro | Gly | Thr | Val | Asn | Gly | Leu | His | Leu | Ser | Ile | | |
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| His | Leu | Pro | Gly | Gln | Ser | Gln | Pro | Ser | Asp | Leu | Leu | Tyr | Ile | Leu | Asp | | |
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| Ile | Gln | Pro | Gln | Gly | Gly | Leu | Gln | Cys | Phe | Pro | Gln | Pro | Pro | Val | Asn | | |
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| Pro | Leu | Lys | Val | Asp | Trp | Gly | Leu | Pro | Ser | Pro | Ser | Pro | Ser | Pro | Ile | | |
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| His | Pro | Ala | His | His | Lys | Arg | Asp | Arg | Arg | Gln | Ile | Phe | Leu | Pro | Glu | | |
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| | | | 900 | | | | | 905 | | | | | 910 | | | | |
| Ser | Ala | Pro | Cys | Thr | Val | Val | Gln | Cys | Asp | Leu | Gln | Glu | Met | Ala | Arg | | |

| | | | | | | | | | | | | | | | |
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| Gly | Gln | Arg | Ala | Met | Val | Thr | Val | Leu | Ala | Phe | Leu | Trp | Leu | Pro | Ser |
| | 930 | | | | | 935 | | | | | 940 | | | | |
| Leu | Tyr | Gln | Arg | Pro | Leu | Asp | Gln | Phe | Val | Leu | Gln | Ser | His | Ala | Trp |
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| Phe | Asn | Val | Ser | Ser | Leu | Pro | Tyr | Ala | Val | Pro | Pro | Leu | Ser | Leu | Pro |
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| | | | 980 | | | | | 985 | | | | | 990 | | |
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